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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 09/758,633 | 01/10/2001 | David Wayne Davis | HK5302 | 9559 |

7590 03/10/2004

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EXAMINER

MEDINA SANABRIA, MARIBEL

| ART UNIT | PAPER NUMBER |
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1754

DATE MAILED: 03/10/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/758,633

Applicant(s)

DAVIS, DAVID WAYNE

Examiner

Maribel Medina

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 January 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 11-15 is/are allowed.
- 6) ☒ Claim(s) 1,2,4-10,16 and 17 is/are rejected.
- 7) ☒ Claim(s) 3,18-20 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 10 January 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 9/24/01.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

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DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1, 2, 4-10, 16 and 17 are rejected under 35 U.S.C. 102(b) as being anticipated by US Patent No. 5,728,464 (Checketts).

Regarding claims 1, 2, and 4-10, Checketts discloses a metal hydride core coated with a water impervious material. The material is a plastic material such as polyethylene plastic and the metal hydride may be NaH (See claims 1, 5, and 6).

Regarding the limitation of claims 1 and 7 that reads “said barrier being of sufficient length and flexibility to be wrapped around a spool,” has been noted but not considered since the limitation is directed to an intended use. Note, that the spool is not required in the device of claims 1 and 7. Note, “A claim containing a “Recitation with respect to the manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from a prior art apparatus” if the prior art apparatus teaches all the structural limitations of the claim. *Ex parte Masham*, 2USPQ2d 1647 (Bd. Pat. App. & Inter. 1987).

Regarding claims 16 and 17, Checketts discloses a method for generating hydrogen, comprising providing a fuel source comprising metal hydrides bodies (pellets) and a water impervious material encasing said metal hydrides bodies; removing by cutting in half a first

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discrete body (pellet) to expose the metal hydride bodies and reacting the exposed metal hydride with water.

No difference is seen between the instantly claimed invention and Checketts' disclosure.

Allowable Subject Matter

3. Claims 3 and 18-20 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

4. Claims 11-15 have been allowed.

5. The following is a statement of reasons for the indication of allowable subject matter:

Claims 3 and 18-20 disclose allowable subject matter. Regarding claim 3, the prior art (Checketts) fail to disclose or suggest the device further comprising a spool, wherein the carrier is wrapped around the spool. Regarding claim 18 and 20 the prior art fails to disclose or suggest that the barrier is stored on a spool and the step of unrolling the first portion of the barrier from the spool. Regarding claim 19, the prior art fails to disclose or suggest transferring heat from a first reaction chamber to a second reaction chamber; passing Al and water into the second reaction chamber and reacting Al and water in the second reaction chamber.

6. The following is an examiner's statement of reasons for allowance: Claims 11-15 are allowable upon consideration of the prior art. The prior art fails to disclose or suggest a device comprising a reaction chamber; a spool; a fuel source wrapped around said spool, said spool fuel source comprising a chemical hydride core and an elongate moisture barrier encasing said core, said fuel source passing from said spool to said reaction chamber.

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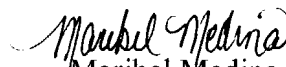
Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Maribel Medina whose telephone number is (571) 272-1355. The examiner can normally be reached on Monday through Friday from 7:30 AM to 4:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stanley Silverman can be reached on (571) 272-1358. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Maribel Medina
Examiner
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